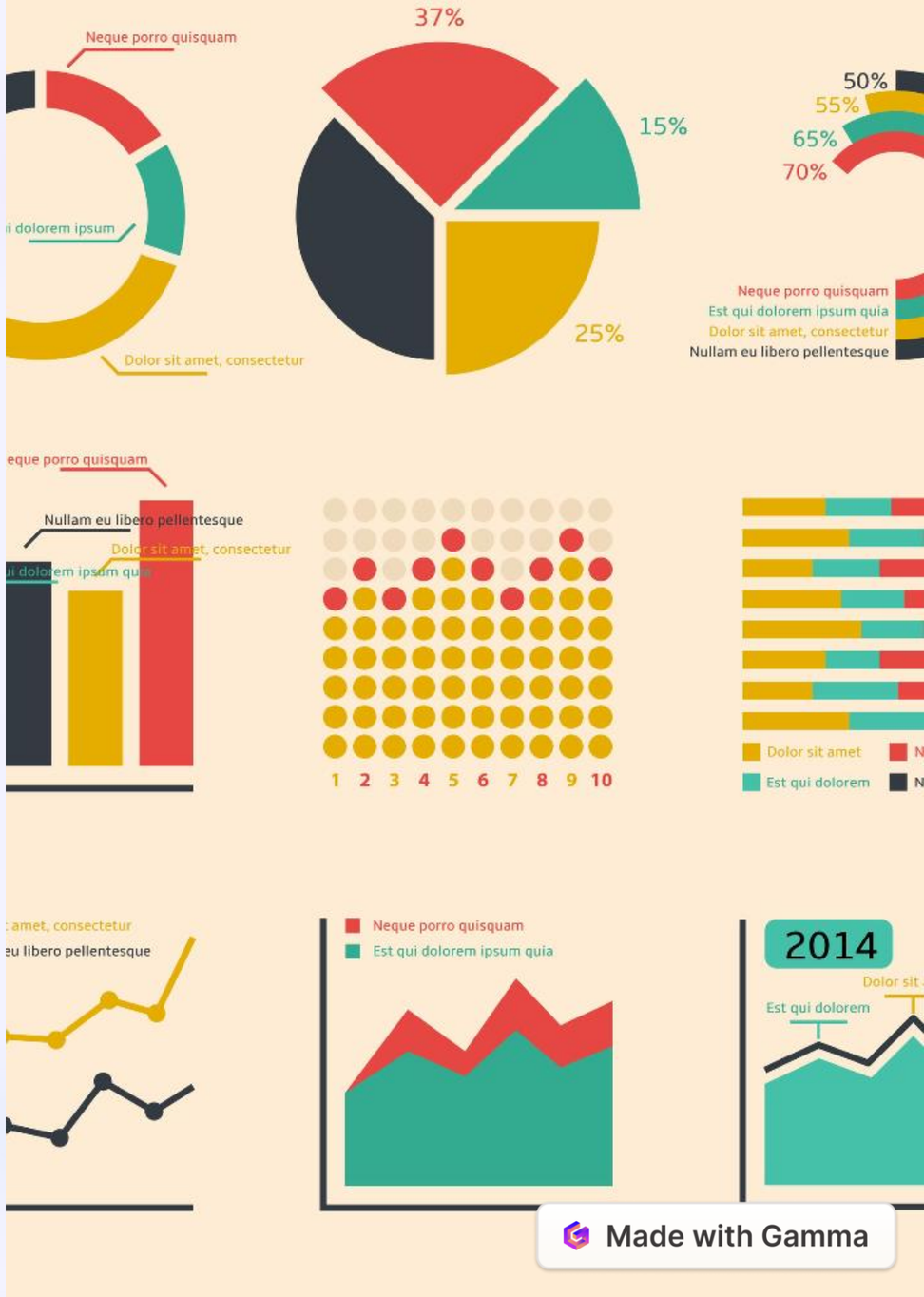
PHASE 5:
AI-driven Exploration and prediction of Company Registration Trends with register of companies

The use of AI in exploring and predicting company registration trends has become increasingly important. However, certain challenges remain in the design exploration of these trends. In this presentation, we will delve into these challenges and the potential of AI in analyzing key data points for trend analysis.



The Problem Statement

The design exploration of company registration trends requires thorough analysis of various factors. However, the current process is time-consuming and lacks accuracy. AI can help solve these issues by providing efficient and accurate predictions.

The Importance of AI in Design Exploration and Prediction

Innovation

AI technology can provide new perspectives for analyzing complex data sets and patterns in the prediction of company registration trends.

Accuracy

With AI, the gathered data can be analyzed more accurately and objectively.

Speed

AI algorithms can process a large volume of

Valuable insights

AI can provide valuable insights into the

Challenges in AI Design Exploration for Company Registration Trends

1 Data processing

The processing of unstructured data and the analysis of large datasets provide a challenge for AI systems.

2 Interpretation

Due to the complexity of the data, it can be difficult for AI to interpret the information accurately.

3 Unforeseen variables

Sudden changes in market conditions or unexpected regulations can affect the accuracy of the predictions.

Overview of the Register of Companies

- The Register of Companies is a database of all registered companies that operate within a given jurisdiction.
- The register provides important data points for analysis, such as the number of new companies registered and geographic locations.
- The register contains information such as the company name, type, registered address, and directors.

AI Techniques for Design Exploration and Prediction

1

Machine Learning

Algorithms can be trained to identify patterns in data and provide accurate predictions.

2

Clustering

Data can be grouped into similar clusters, making it easier to analyze.

3

Decision Trees

A graphical representation of data can be created to show all possible outcomes, helping to make more informed decisions.

Benefits and Potential Impact of AI in Company Registration Trend Analysis

Efficiency

AI can provide faster and more accurate results, saving time and resources.

Accuracy

The accuracy of predictions can prevent costly errors and reduce risks.

Competitive edge

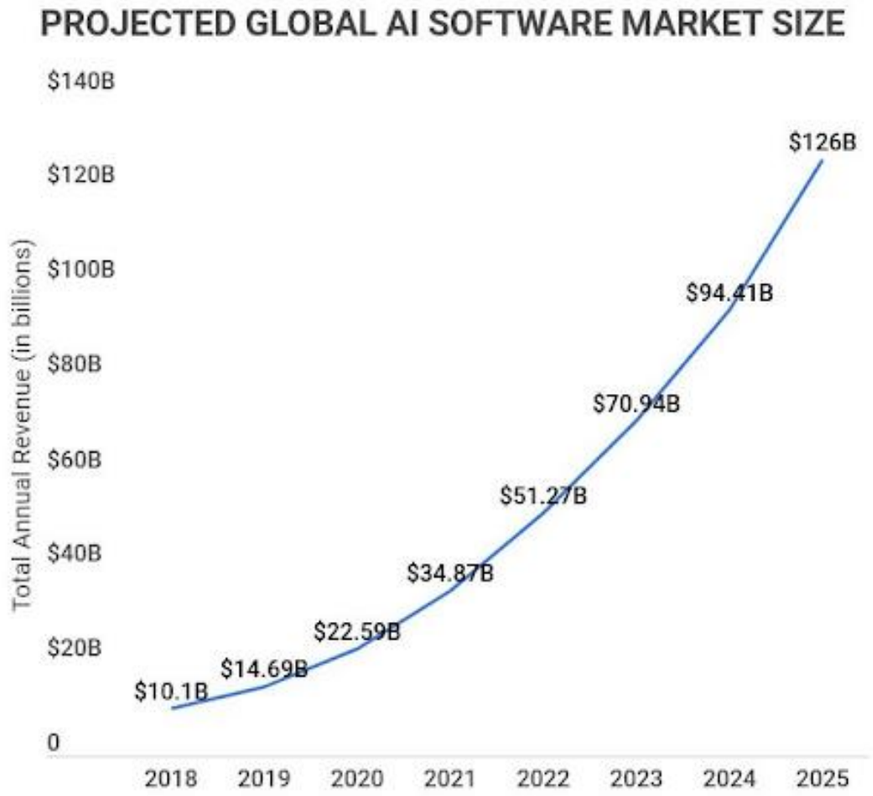
By utilizing AI technology, businesses can stay ahead of the curve and gain a competitive advantage.

CODE:

```
data={‘company name’ :[‘Niko resource limited’, ‘Tata and Lyte industry’, ‘Oil and gas exploration company’, ‘Advantmed’, ‘Nippon signal co ltd’] , “Year of reg’ :[‘1998’, ‘2001’, ‘2002’, ‘2004’, ‘2006’,], ‘Registered state’ :[‘Gujarat’, ‘Gujarat’, ‘Gujarat’, ‘Gujarat’, ‘Gujarat’], ‘salary’ :[‘25000’, ‘30000’, ‘40000’, ‘25000’, ‘100000’]}
df = pd.DataFrame(data)
df
```

let us start by building a function to calculate the coefficients using standard formula for calculation using linear regression model

```
Import matplotlib.pyplot as plt
import numpy as np
def simple_linear_regression(x,y):
n=np.size(x)
mean_x = np.mean(x)
mean_y = np.mean(y)
```



```
xy = np.sum(y*x) - n*mean_y*mean_x
xx = np.sum(x*x) – n*mean_x*mean_x
m = xy / xx
c = mean_y – m*mean_x
return m,c
x= df[‘length’].to_numpy()
y= df[‘price’].to_numpy()
m,c = simple_linear_regression(x,y)
y_pred = c+m*x
plt.plot(x, y_pred, color = “g”, label=‘salary
prediction’)
plt.scatter(df[‘length’]
plt.ylabel(‘salary’)
plt.legend(bbox_to
-anchor=(1,1))
plt.show()
df[‘size’]= df[‘breadth’]*df[‘length’]
df[[‘company name’, ‘salary’, ‘year of reg’]]
```

Conclusion

AI in design exploration and prediction for company registration trends has the potential to revolutionize the way we analyze business data. By overcoming current challenges and using the right techniques, AI can provide accurate and valuable insights for informed decision-making.